



## Arizona Vaccine News

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### VACCINE NEWS

#### **Updated VFC Resolution on Adolescent Pertussis Vaccine**

- The Advisory Committee on Immunization Practices (ACIP) has published an updated Vaccine for Children (VFC) program resolution regarding adolescent pertussis vaccines by adding recommendations for Tdap use in pregnant adolescents.
- Adolescents who are pregnant and have not previously received Tdap should receive Tdap, preferably during the third or late second trimester (after 20 weeks gestation). Alternatively, Tdap can be administered immediately postpartum.

The full text of the new VFC resolution can be found at:

<http://www.cdc.gov/vaccines/programs/vfc/downloads/resolutions/0611dtap.pdf>

#### **Updated VFC Resolution on Meningococcal Vaccine**

- ACIP has published an updated VFC program resolution regarding meningococcal vaccines in which it decreases the minimum age of meningococcal conjugate vaccine to 9 months, updates the intervals for booster doses, and adds information about the meningococcal polysaccharide vaccine.

- Eligible groups for VFC meningococcal vaccine are:
  1. Children aged 9 months through 10 years who are at increased risk for meningococcal disease, including:
    - a) Children who have complement deficiencies (e.g., C5-C9, properdin, factor H, or factor D);
    - b) Children with HIV infection;
    - c) Travelers to or residents of countries in which meningococcal disease is hyperendemic or epidemic;
    - d) Children who are who are part of an outbreak of a vaccine-preventable serogroup.
  2. Children aged 2 through 10 years who have anatomic or functional asplenia.
  3. All children ages 11 through 18 years.

The full text of the new VFC resolution can be found at:

<http://www.cdc.gov/vaccines/programs/vfc/downloads/resolutions/06-11mening-mcv.pdf>

## VACCINE-PREVENTABLE DISEASES NEWS

### **Measles Outbreaks Continue in the European Union**

- The European Centre for Disease Prevention and Control (ECDC) reports that between January and June 2011, there have been over 21,000 cases of measles from 23 of the 30 countries in the European Union (EU) and European Economic Area /the European Free Trade Area (EEA/EFTA).
- The majority of measles cases occurred in France (12,699), Spain (2,261), Romania (1,619), Italy (>1,500) and Germany (1,193).
- In 2010, more than 30,000 measles cases were reported by EU and EEA/EFTA countries—a five-fold increase compared to the annual average for the preceding five years.
- Eighty-five percent of the reported measles cases in 2010 were unvaccinated, and the situation is similar in 2011.

For more country-specific data, see:

[http://ecdc.europa.eu/en/publications/Publications/2011\\_June\\_measles\\_monthly.pdf](http://ecdc.europa.eu/en/publications/Publications/2011_June_measles_monthly.pdf)

### **Health Advisory on Measles from the Centers for Disease Control and Prevention (CDC)**

- In the US from January 1-June 17, 2011 there have been 156 confirmed cases of measles reported to CDC. This is the highest reported number since 1996.
- Most of the cases were imported (136) and involved unvaccinated U.S. residents who recently traveled abroad, unvaccinated visitors to the United States, and people linked to these imported cases.
- People of all ages should be up-to-date on measles vaccinations (and other vaccinations), especially before international travel.

For more information on measles, see: <http://www.azdhs.gov/measles/index.htm>

To read the full CDC Health Advisory, see: <http://emergency.cdc.gov/HAN/han00323.asp>

## LITERATURE ON VACCINES AND VACCINE-PREVENTABLE DISEASES

### **Entire Issue of *Nature* Dedicated to Vaccines and Vaccine-Preventable Diseases**

- The May 26, 2011 issue of *Nature* deals with vaccines and vaccine-preventable diseases.
- Articles include efforts to control measles and polio, vaccine safety, and the development of vaccines for HIV, malaria, and tuberculosis.

See the articles at: <http://www.nature.com/news/specials/vaccines/index.html>

### **Health Benefits and Risk of Intussusception after Rotavirus Vaccine in Mexico and Brazil**

- In March 2006 and May 2007, Brazil and Mexico, respectively, added RV1 (Rotarix®) to their national childhood immunization programs, allowing for a study of whether routine vaccination with RV1 could be associated with an increase in intussusception.
- RV1 use was associated with a short-term risk of intussusception in approximately 1 of every 51,000 vaccinated infants in Mexico, and approximately 1 of every 68,000 vaccinated infants in Brazil.
- The absolute number of deaths and hospitalizations averted because of rotavirus vaccination far exceeded the number of intussusception cases that may have been associated with RV1 vaccination.

See the full article at the *New England Journal of Medicine*, June 16, 2011 at:

<http://www.nejm.org/doi/full/10.1056/NEJMoa1012952?query=TOC#t=articleTop>

and the associated editorial at:

<http://www.nejm.org/doi/full/10.1056/NEJMe1105302?query=TOC>

### **Hepatitis B Virus Spread during a Mass Casualty Incident**

- A boat with Afghan asylum seekers exploded in Australian waters, with multiple casualties and severe burns in many survivors. One of these patients was later found to have been a hepatitis B virus (HBV) carrier at the time of the explosion.
- Subsequently, 3 other patients were diagnosed with acute HBV infection, and 4 more patients showed serological evidence of recent HBV infection.
- Molecular typing suggested that all of these patients had HBV transmission that occurred at or around the time of the boat explosion.
- This is the first report of confirmed transmission of HBV following a disaster, and it reinforces the CDC recommendation for using hepatitis B vaccination as postexposure prophylaxis in mass casualty situations.

See the abstract in *Journal of Infectious Diseases*, August 1, 2011 at:

<http://jid.oxfordjournals.org/content/204/3/400.abstract?etoc>

- In addition, for CDC recommendations on hepatitis B vaccine use in mass casualty settings, see *Morbidity and Mortality Weekly Report* (MMWR), August 1, 2008, page 4 at: <http://www.cdc.gov/mmwr/PDF/rr/rr5706.pdf>

### ***Haemophilus influenzae* type b (Hib) Still Puts Children at Risk**

- Five invasive *Haemophilus influenzae* type b (Hib) cases in children occurred in Minnesota in 2008 shortly after the recommended deferral of the 12–15 months Hib vaccine booster during a US vaccine shortage.
- Of the five cases (with one death), four had incomplete Hib vaccination (three refused/delayed), and one was immunodeficient.
- Nasopharyngeal cultures in 1631 children in clinics near the Hib cases showed no Hib carriage.
- Unvaccinated and medically vulnerable children are still at risk for Hib infection, even though Hib carriage is not widespread in young children.

See the abstract in *Epidemiology and Infection*, May 18, 2011 at:

<http://journals.cambridge.org/action/displayAbstract;jsessionid=1DFEC80970C81D041B5A91F56F95BA2B.tomcat1?fromPage=online&aid=8277008>

### **Comparison of Complications from Influenza in Asthmatic Hospitalized US Children (Seasonal Influenza in 2003-2009 Compared to Pandemic Influenza, 2009)**

- In the 2003-2009 influenza seasons, 32% of hospitalized children with *seasonal* influenza also had a diagnosis of asthma.
- During the 2009 pandemic H1N1 influenza outbreak, 44% of hospitalized children with *pandemic* influenza also had a diagnosis of asthma.
- Intensive care was needed in fewer asthmatic children with *seasonal* influenza when compared to *pandemic* influenza (16% vs 22%).
- Pneumonia was diagnosed less often in children with *seasonal* influenza when compared with *pandemic* influenza (40% vs 46%).
- Hospitalized asthmatic children with either seasonal or pandemic influenza were equally likely to have respiratory failure (5%) and death (1%).
- More children with influenza **A** infections (either seasonal or pandemic) were diagnosed with asthma exacerbations than those infected with influenza **B** (51% vs 29%).
- Asthmatic children need yearly influenza vaccination.

See abstract at *Pediatrics*, July 2011:

<http://pediatrics.aappublications.org/content/128/1/e27.abstract>

### **Severe Childhood Bacterial Pneumonia Worsened by Influenza Coinfection**

- Children with severe bacterial pneumonia without a chronic comorbid condition between January 1, 2004-June 30, 2009 were analyzed as to the bacterial pathogen and whether there was a viral coinfection.
- Of 3382 children with severe pneumonia, 105 (3.1 %) also had influenza.
- Among children with pneumonia but without influenza, the bacterial isolates were *Streptococcus pneumoniae* (20%), *Staphylococcus aureus* (11%), and group A  $\beta$ -hemolytic streptococcus (GAS) (4%).
- Among children with influenza, *S. aureus* was the most commonly identified bacterial pathogen (23%). *S. pneumoniae* was found in 14% and GAS was found in 3%.
- Coinfection with influenza and *S. aureus* was associated with higher odds of intensive care unit admission, mechanical ventilation, vasoactive infusions, and blood product transfusions, as well as with higher costs and a longer hospital stay.
- Routine yearly influenza vaccination is important for all children.

See abstract in *Archives of Pediatric and Adolescent Medicine*, June 2011: <http://archpedi.ama-assn.org/cgi/content/abstract/165/6/506>

### **VACCINE RESOURCES**

#### **Take a Test to See Which Vaccines You Need**

- CDC has an online quiz that lets adolescents and adults know which vaccines they need.
- See what vaccines YOU need at: <http://www2a.cdc.gov/nip/adultImmSched>

#### **CDC's "Yellow Book" of Health Information for International Travel Is Now Online**

- The 2012 edition of "CDC Health Information for International Travel, 2012," is now available online at: <http://wwwnc.cdc.gov/travel/page/yellowbook-2012-home.htm>
- Please feel free to distribute ADHS' *Arizona Vaccine News* to any of your partners who may be interested. Past issues of *Arizona Vaccine News* can be found at: <http://www.azdhs.gov/phs/immun/index.htm>